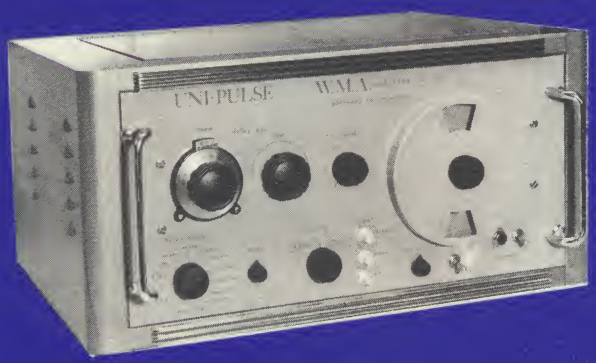
WMA andersen



UNI-PULSE

• A New Versatile Electronic Tool having the following features:

- **UNI-PULSE** provides all signals required to test any delay line.
- **UNI-PULSE** makes possible extreme accuracy of delay measurements.
- **UNI-PULSE** covers the frequency range of 8.5 to 130 megacycles.
- **UNI-PULSE** has an internal trigger generator with a short term frequency stability of better than 1 part in a million.

WMA andersen co., inc.

Pleasant Valley, Connecticut

FRontier 9-3363

UNI-PULSE FEATURES

The Uni-Pulse is comprised of four basic circuits. These are:

1. A stable oscillator covering the frequency range from a little below 500 K. C. to a little above 1 megacycle with a short term stability of better than 1 part per million.
2. A Schmitt trigger followed by 13 Binaries. A selector switch picks off the output of either the Schmitt trigger or any of the 13 Binaries to determine the p. r. f. of either the video output signals or the pulsed R. F. output. The output p.r.f. covers the range slightly above 1 megacycle to below 60 cycles per second. The percentage stability of the output p.r.f. is exactly equal to that of the stable oscillator of 1 above, i.e.; better than 1 part per million on a short term basis.
3. The pulse forming network shapes the output trigger of 2, above. Pulse widths available are from .2 microseconds to a width corresponding to a 50% duty cycle.
4. The pulsed R.F. oscillator covers the frequency range of 8.5 to 130 megacycles in 6 bands. Pulse widths corresponding to 3 above are available as well as a c. w. output. Pulse rise times of .04 microsecond are available. A control is provided to degrade this rise time for special purposes and is located on the front panel. R. F. pulse amplitude is nominally 40 volts peak to peak at the fastest rise time.

Additional features of the Uni-Pulse are:

a. At the rear of the chassis a trigger at the p.r.f. of the stable oscillator is always available. This is extremely important when certain precise delay measurements are made.

b. Means for driving the Uni-Pulse with an external trigger is provided. The same 13 Binaries can then be used to determine the actual p.r.f. of the Uni-Pulse.

SPECIFICATIONS FOR THE UNI-PULSE

1. Output p.r.f. covering the range of 1 M.C. to less than 60 c.p.s. with a short term stability of better than 1 part per million.
2. A positive or a negative video pulse of 6 volts peak amplitude into a 100 ohm load with a pulse width of .2 microseconds to a pulse width corresponding to a 50% duty cycle at any p.r.f.
3. A 12 volt peak to peak square wave at any available repetition frequency into a 100 ohm load.
4. A pulsed R.F. output of nominally 40 volts peak to peak into a 50 ohm load with a nominal rise time of .04 microseconds, and means for degrading this rise time, covering a frequency range of 8.5 to 130 megacycles.
5. A high level C.W. signal at the R.F. frequency (8.5 to 130 MC) of the pulsed oscillator section of the Uni-Pulse.
6. A trigger at the p. r. f. of the stable oscillator is always available, regardless of which Binary actually triggers the video and R.F. sections of the Uni-Pulse.
7. Means for externally triggering the Uni-Pulse are provided.

COMPLETE APPLICATION OF THE UNI-PULSE TO THE USER CANNOT BE DESCRIBED IN DETAIL IN THIS DATA SHEET. INFORMATION REQUIRED IN PARTICULAR MAY BE HAD BY WRITING W M A andersen co., inc., pleasant valley, connecticut.

W M A andersen co., inc.
pleasant valley, conn.

FRontier 9-3363

April 27, 1965

Mr. T. Nelson
Systems Consultant
Box 1546
Poughkeepsie, N. Y. 12603

Dear Mr. Nelson:

Enclosed please find the literature you requested describing the UNI-PULSE and a short description of methods of making acoustic measurements using this device.

An additional feature - i.e. a gating circuit, has been incorporated into the UNI-PULSE so that measurements can be made utilizing a technique developed by H. J. McSkimin of Bell Telephone Labs., and published in the "Journal of the Acoustical Society of America" in January, 1961.

If you have any further questions, please feel free to contact us. Our representative in your area is H. Wilson Ryno Co., 1060 Broad St., Newark 2, N. J., Tel: 1-201-642-0208.

We are also enclosing a flyer on our oscilloscope PROBE, which may be of interest to you.

Yours very truly,

Walther M. A. Andersen
President

WMAA:ju
Encs. CS1, 2a, 3, 5
McSkimin Report

cc: Mr. Lester C. Palmer
H. Wilson Ryno Co.